

Abstract

Disclosed is a mutant human α -synuclein with decreased ability of forming aggregation. The mutant human α -synuclein of the invention is able to inhibit aggregation of the wild type human α -synuclein, Ala53Thr mutant human α -synuclein or Ala50Pro mutant human α -synuclein, thus is useful for investigation of pathology and treatment of Parkinson's disease and for research and development of gene therapy. Also disclosed is a partial structure peptide of human α -synuclein comprising amino acid substitutions as taught by the invention.